members, guide tracks, handles, guide pins, strut-mounting hardware, strikers, struts, power-mounting hardware, track members, rails, latch members, antennas, wiper mounts, sealing members, cosmetic articles, pin components, and hinge members; and

a layer of a rapid set, rapid cure, two-component urethane adhesive disposed between said first surface of said glass panel and said attachment member, said layer of adhesive cured to form a joint suitable for use on a vehicle;

wherein said rapid set characteristic is such that said adhesive achieves a set within a time period of about 3 minutes or less from the time of initial disposition of said adhesive between said glass panel and said attachment member, and wherein said rapid cure characteristic is such that said adhesive cures in a time period of less than about 60 minutes from the time of adhesive set;

said layer of cured adhesive bonding said load bearing attachment member to said first surface of said glass panel and without exposure of said bonded load bearing attachment member on said second surface of said panel.

-14- (amended)

The vehicular window assembly of claim 1 further comprising:

a glass frit layer disposed on said glass panel, said glass frit layer being disposed between said first surface of said glass panel and said layer of cured adhesive such that said layer of cured adhesive bonds said load bearing attachment member directly to said glass frit layer.

-18- (twice amended)

A bonded vehicular assembly suitable for use in a vehicle, said assembly comprising:

a glass substrate having a first surface and an opposing second surface;

a load-bearing attachment member comprising a material selected from the group consisting of metal, plastic, and combinations thereof, said attachment member being selected from the group consisting of mounting members, hinges, clevises, latches, lift brackets, division bars, positionable members, guide tracks, handles, guide pins, strut-mounting hardware, strikers, struts, power-mounting hardware, track members, rails, latch members, antennas, wiper mounts, sealing members, cosmetic articles, pin components, and hinge members; and

a layer of a rapid set, rapid cure, two-component urethane adhesive disposed between and bonding said first surface of said glass substrate [and] to said attachment member, and

wherein said rapid set characteristic is such that said adhesive achieves a set within a time period of about 3 minutes or less from the time of initial disposition of said adhesive between said glass panel and said attachment member, and wherein said rapid cure characteristic is such that said adhesive cures in a time period of less than about 60 minutes from the time of adhesive set, and wherein upon curing of said adhesive, a joint suitable for use on a vehicle is formed;

said layer of cured adhesive bonding said load bearing attachment member to said first surface of said glass substrate and without exposure of said bonded load bearing attachment member on said second surface of said substrate.

-37- (twice amended)

The movable bonded vehicular window assembly of claim 36 wherein said assembly further comprises:

a glass frit layer disposed on said glass substrate , said glass frit layer being disposed between said first surface of said glass substrate and said layer of urethane adhesive such that said layer of urethane adhesive bonds said load bearing attachment member directly to said glass frit layer.

-39- (twice amended)

The bonded vehicular window assembly of claim [38] 36 wherein said attachment member is a hinge [comprises] having a first portion and a second portion that is movable with respect to said first portion, and wherein said first portion is bonded to said first surface of said glass substrate by an [effective] amount of said urethane adhesive disposed between and contacting said first portion and said glass substrate.

-41- (twice amended)

A vehicular panel assembly suitable for use in a vehicle, said assembly comprising:

a glass substrate having a first surface and an opposite second surface;

at least one load-bearing attachment member affixed to said glass [member] substrate and selected from the group consisting of mounting members, hinges, clevises,

latches, lift brackets, division bars, positionable members, guide tracks, handles, guide pins, strut-mounting hardware, strikers, struts, power-mounting hardware, track members, rails, latch members, antennas, wiper mounts, sealing members, cosmetic articles, pin components, and hinge members; and

a layer of a two-component urethane adhesive disposed between and [affixing] bonding said at least one attachment member to said first surface of said glass substrate, said layer of adhesive cured to form a joint suitable for use on a vehicle, wherein said adhesive comprises an isocyanate component and a polyol component wherein said adhesive further includes an amine-based catalyst and achieves a set within about 3 minutes;

said layer of cured adhesive bonding said load bearing attachment member to said first surface of said glass substrate and without exposure of said bonded load bearing attachment member on said second surface of said substrate.

-47- (twice amended)

A method of forming a bonded vehicular assembly by adhering a load-bearing attachment member to a glass surface, said method comprising:

providing a substrate having a first glass surface and an opposing second surface;

providing an attachment member to be adhered to said first glass surface, said attachment member having a mounting surface;

selecting said attachment member from the group consisting of mounting members, hinges, clevises, latches, lift brackets, division bars, positionable members, guide tracks, handles, guide pins, strut-mounting hardware, strikers, struts, power-mounting

hardware, track members, rails, latch members, antennas, wiper mounts, sealing members, cosmetic articles, pin components, and hinge members;

providing a rapid set, rapid cure, two-component urethane adhesive;

depositing an [effective] amount of said adhesive on at least one of said attachment member mounting surface and said first glass surface;

positioning said attachment member and said substrate such that said adhesive is disposed between and contacting said attachment member and at least a portion of said first glass surface of said substrate without exposure of said attachment member on said opposing second surface of said substrate;

said positioning being achieved within about 3 minutes after said depositing step; and

curing said adhesive.

-60- (amended)

The method of claim 47 further comprising, prior to depositing said adhesive, a step of:

depositing a layer of at least one of an adhesion promoter and a primer to at least one of said first glass surface and said attachment member mounting surface.

-61- (amended)

The method of claim 47 wherein the thickness of said adhesive disposed between said attachment member and at least a portion of said first glass surface is from about 0.01 mm to about 4.0 mm.

-70- (twice amended)

A method of forming a bonded vehicular assembly by adhering an attachment member to a glass substrate, said method comprising:

providing a glass substrate having a first surface and an opposing second surface;

providing a load-bearing attachment member to be adhered to said first surface of said glass substrate, said attachment member having a mounting surface;

selecting said attachment member from the group consisting of mounting members, hinges, clevises, latches, lift brackets, division bars, positionable members, guide tracks, handles, guide pins, strut-mounting hardware, strikers, struts, power-mounting hardware, track members, rails, latch members, antennas, wiper mounts, sealing members, cosmetic articles, pin components, and hinge members;

providing a rapid set, rapid cure, two-component urethane adhesive;

forming a frit layer on said first surface of said glass substrate;

depositing an [effective] amount of said adhesive on at least one of said attachment member mounting surface and said frit layer;

positioning said attachment member and said substrate such that said adhesive is disposed between and contacting said attachment member and at least a portion of said frit layer formed on said substrate without exposure of said attachment member on said second surface of said substrate, said positioning step being performed within about 3 minutes of said depositing step; and

curing said adhesive.

-71- (twice amended)

A moveable vehicular window assembly comprising:

a glass panel having a first surface an opposing second surface and comprising a layer of frit disposed on [at least one of its surfaces] said first surface;

a load-bearing attachment member comprising a material selected from the group consisting of metal, plastic, and combinations thereof, said attachment member being selected from the group consisting of mounting members, hinges, clevises, latches, lift brackets, division bars, positionable members, guide tracks, handles, guide pins, strut-mounting hardware, strikers, struts, power-mounting hardware, track members, rails, latch members, antennas, wiper mounts, sealing members, cosmetic articles, pin components, and hinge members; and

a layer of a rapid set, rapid cure, two-component urethane adhesive disposed between said layer of frit and said attachment member, wherein said adhesive comprises an isocyanate component and a polyol component, said layer of adhesive cured to form a joint suitable for use on a vehicle;

wherein said rapid set characteristic is such that said adhesive achieves a set within a time period of about 3 minutes or less from the time of initial disposition of said adhesive between said [glass panel] layer of frit and said attachment member, and wherein said rapid cure characteristic is such that said adhesive cures in a time period of less than about 60 minutes from the time of adhesive set;

said layer of cured adhesive bonding said load bearing attachment member to said layer of frit on said first surface of said glass panel and without exposure of said load bearing attachment member on said second surface of said panel.

-72- (twice amended)

The movable vehicular window assembly of claim 71 wherein said rapid set characteristic is such that after mixing said isocyanate component and said polyol component, and after relatively promptly contacting said layer of frit on said glass panel to said attachment member, said layer of frit on said glass panel and said attachment member are held by said adhesive against movement resulting from the weight of said panel and said attachment member, and held by said adhesive against movement resulting from application of a relatively slight force, within said time period.

-76- (amended)

The movable vehicular window assembly of claim [75] 71 wherein said rapid cure characteristic is such that said adhesive cures in a time period of less than about 50 minutes.

-78- (amended)

The moveable vehicular window assembly of claim 71 wherein said group from which said attachment member is selected [from the group consisting of mounting components, hinges, clevises, latches, lift brackets, division bars, guide tracks, handles, guide pins, strut-mounting hardware, strikers,] further consists of brake lights, [power-mounting hardware, rails,] gaskets, [antennas, wiper mounts, cosmetic articles,] and rearview mirrors.

-80- (amended)

The movable vehicular window assembly of claim 71 further comprising:

a layer of at least one of an adhesive promoter and a primer disposed between said layer of frit on said glass panel and said layer of adhesive.

-88- (twice amended)

A window assembly suitable for use in a vehicle, said assembly comprising:

a glass panel having a first surface and an opposing second surface;

a load-bearing attachment member adapted for attachment to said first surface of said glass panel and selected from the group consisting of mounting members, hinges, clevises, latches, lift brackets, division bars, positionable members, guide tracks, handles, guide pins, strut-mounting hardware, strikers, struts, power-mounting hardware, track members, rails, latch members, antennas, wiper mounts, sealing members, cosmetic articles, pin components, and hinge members; and

a layer of a rapid set, rapid cure, two-component urethane adhesive disposed between said first surface of said glass panel and said attachment member, wherein said adhesive comprises an isocyanate component and a polyol component, and wherein said adhesive is capable, upon curing, to form a bond that can withstand a tensile force of at least 5 lbs/in^2, wherein said adhesive achieves a set within a time period of about 3 minutes or less, and includes an amine catalyst, said layer of adhesive bonding said load-bearing attachment member to said first surface of said glass panel and without exposure of said bonded load-bearing attachment member on said second surface of said panel.

-89- (twice amended)

A hinged vehicular window assembly for a vehicle suitable for use in a vehicle, said assembly comprising:

a glass panel having a first surface and an opposing second surface and comprising a layer of glass frit disposed on [at least a portion of one of its surfaces] said first surface;

a hinged mounting member having a first portion bonded to said glass frit layer on said first surface of said glass panel by an [effective] amount of a rapid set, rapid cure, two-component urethane adhesive disposed between said glass frit layer on said first surface of said glass panel and said first portion, said adhesive having a cure time within about 60 minutes or less, and said adhesive cured to form a joint suitable for use on a vehicle, said hinged mounting member further having a second portion adapted [for affixment] to be affixed to a mounting surface, said urethane adhesive bonding said first portion of said hinged mounting member to said glass frit layer on said first surface of said glass panel without exposure of said hinged mounting member on said second surface of said glass panel.

-99- (amended)

The hinged assembly of claim 89 further comprising:

a layer of at least one of an adhesion promoter and a primer disposed between said glass frit layer on said first surface of said glass panel and said adhesive.

-110- (twice amended)

A movable window assembly for a vehicle [suitable for use in a vehicle], said assembly comprising:

a glass panel having a first surface and an opposing second surface; and

a load-bearing attachment member bonded to first surface of said glass panel by an [effective] amount of a rapid-set adhesive disposed between said mounting member and said first surface of said glass panel, said adhesive comprising an isocyanate component and a polyol component, said attachment member being selected from the group consisting of mounting components, hinges, clevises, latches, lift brackets, division bars, guide tracks, handles, guide pins, strut-mounting hardware, strikers, brake lights, power-mounting hardware, rails, gaskets, antennas, wiper mounts, cosmetic articles and rearview mirrors;

wherein said rapid set characteristic is such that said adhesive achieves a set within a time period of about 3 minutes or less from the time of initial disposition of said adhesive between said glass panel and said attachment member, and wherein said rapid cure characteristic is such that said adhesive cures in a time period of less than about 60 minutes from the time of adhesive set;

said adhesive bonding said load-bearing attachment member to said first surface of said glass panel without exposure of said bonded load-bearing attachment member on said second surface of said glass panel.

-116- (amended)

The movable window assembly of claim 110 further comprising:

a layer of at least one of an adhesion promoter and a primer disposed between said first surface of said glass panel and said adhesive.

-122- (amended)

The movable window assembly of claim 110 wherein said assembly further comprises:

a frit layer disposed on said first surface of said glass panel, said frit layer being disposed between said first surface of said glass panel and said adhesive such that said adhesive bonds said load bearing member directly to said frit layer.

-123- (twice amended)

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A positionable sunroof adapted and suitable for use in a vehicle, said sunroof comprising:

a glass panel having a first surface and an opposing second surface;

at least one load-bearing hinge attachment component having a first portion [affixed] bonded directly to said first surface of said glass panel and a second portion being adapted for attachment to a vehicle mounting surface; and

a layer of a rapid set, rapid cure, two-component urethane adhesive disposed between a portion of said first surface of said glass panel and said first portion of said hinge attachment component, wherein said adhesive is cured thereby [affixing] bonding said first portion of said hinge attachment component directly to said glass panel;

wherein said rapid set characteristic is such that said adhesive achieves a set within a time period of about 3 minutes or less from the time of initial disposition of said adhesive between said glass panel and said hinge attachment component, and wherein said rapid cure characteristic is such that said adhesive cures in a time period of less than about 60 minutes from the time of adhesive set;

said layer of adhesive bonding said hinge attachment component to said first surface of said glass panel without exposure of said hinge attachment component on said second surface of said glass panel.

-124- (twice amended)

A movable door lift window assembly adapted and suitable for use in a vehicle, said door lift window assembly comprising:

a glass panel having a first surface and an opposing second surface;

at least one load-bearing lift bracket attachment member bonded directly to said first surface of said glass panel by an [effective] amount of a rapid set, rapid cure, two-component urethane adhesive disposed between said first surface of said glass panel and said at least one lift bracket attachment member;

wherein said rapid set characteristic is such that said adhesive achieves a set within a time period of about 3 minutes or less from the time of initial disposition of said adhesive between said glass panel and said bracket attachment member, and wherein said rapid cure characteristic is such that said adhesive cures in a time period of less than about 60 minutes from the time of adhesive set;

said adhesive bonding said load-bearing lift bracket attachment member to said first surface of said glass panel without exposure of said lift bracket attachment member on said second surface of said glass panel.

-125- (twice amended)

A liftgate window assembly adapted and suitable for use in a vehicle, said liftgate comprising:

a glass panel having a first surface and an opposing second surface; and

at least one load-bearing hinge attachment member having a first member [affixed] bonded directly to said first surface of said glass panel by a layer of a rapid set, rapid cure, two-component adhesive disposed between a portion of said first surface of said glass panel and said first member, said hinge further having a second member positionably movable with respect to said first member and adapted for attachment to a vehicle;

wherein said rapid set characteristic is such that said adhesive achieves a set within a time period of about 3 minutes or less from the time of initial disposition of said adhesive between said first surface of said glass panel and said hinge attachment member, and wherein said rapid cure characteristic is such that said adhesive cures in a time period of less than about 60 minutes from the time of adhesive set;

said adhesive bonding said load-bearing hinge attachment member to said first surface of said glass panel without exposure of said hinge attachment member on said second surface of said glass panel.

-126- (twice amended)

A sliding window assembly adapted and suitable for use in a vehicle, said assembly comprising:

a first glass panel having a first surface and an opposing second surface;

at least one guide track bonded directly to [an edge of]said first surface of said first glass panel by an [effective] amount of a rapid set, rapid cure, two-component urethane adhesive, said guide track having a channel configured to slidably receive a glass panel; and

a second glass panel slidably disposed in said channel of said guide track;

wherein said rapid set characteristic is such that said adhesive achieves a set within a time period of about 3 minutes or less from the time of initial disposition of said adhesive between said glass panel and said channel, and wherein said rapid cure characteristic is such that said adhesive cures in a time period of less than about 60 minutes from the time of adhesive set;

said adhesive bonding said guide track to said first surface of said first glass panel without exposure of said guide track on said second surface of said first glass panel.

-127- (amended)

The sliding window assembly of claim 126 wherein said first surface of said first glass panel has a pin component bonded to it by an [effective] amount of said adhesive, and said second glass panel has a latch component bonded to it by an [effective] amount of said adhesive, wherein said latch component is adapted to releasably engage said pin component.

-129- (amended)

The sliding window assembly of claim 128 wherein said at least one guide track is bonded to [an edge of] said third glass panel by an [effective] amount of said adhesive.

-130- (amended)

The sliding window assembly of claim 129 wherein said at least one guide track comprises:

an upper guide track bonded by an [effective] amount of said adhesive to an upper edge of said first surface of said first glass panel and an upper edge of said third glass panel; and

a lower guide track bonded by an [effective] amount of said adhesive to a lower edge of said first surface of said first glass panel and a lower edge of said third glass panel.

Please add the following new claims 131-147:

-131- (new)

A vehicular window assembly suitable for use in a vehicle, said window assembly comprising:

a glass panel having a first surface and an opposing second surface;

a load-bearing attachment member selected from the group consisting of mounting members, hinges, clevises, latches, lift brackets, division bars, positionable members, guide tracks, handles, guide pins, strut-mounting hardware, strikers, struts, power-mounting hardware, track members, rails, latch members, antennas, wiper mounts, sealing members, cosmetic articles, pin components, and hinge members; and

a layer of a rapid set, rapid cure, two-component urethane adhesive disposed between said first surface of said glass panel and said attachment member, said adhesive comprising a mixture of an isocyanate component and a polyol component, said layer of adhesive being cured such that said layer of cured adhesive bonds said load bearing attachment member to said first surface of said glass panel;

wherein said rapid set characteristic is such that after mixing said isocyanate and polyol components, and after promptly contacting said attachment member with said layer of adhesive and said first surface of said glass panel, said adhesive sets whereby said attachment member and said glass panel are held by said adhesive against movement resulting from the weight of said attachment member on said panel, and wherein said rapid cure characteristic is such that said adhesive cures to bond said attachment member to said first surface of said glass panel in a time period of less than about 60 minutes from the time of adhesive set;

said layer of cured adhesive bonding said load bearing attachment member to said first surface of said glass panel and without exposure of said attachment member on said second surface of said panel.

-132- (new)

The bonded vehicular assembly of claim 131 wherein said polyol component includes a high amine density plural amine in an amount of from about 2% to about 20% by weight of said polyol component.

-133- (new)

The bonded vehicular assembly of claim 131 wherein said adhesive further comprises: at least one filler agent in at least one of said isocyanate component and said polyol component, wherein said filler agent is in an amount of from about 15% to about 50% of the total weight of said polyol and isocyanate components.

-134- (new)

The bonded vehicular assembly of claim 133 wherein said filler agent is in an amount of from about 20% to about 30% of the total weight of said polyol and said isocyanate components.

-135- (new)

The bonded vehicular assembly of claim 133 wherein said filler agent is selected from the group consisting of silicates, silica, calcium carbonate, talc, and combinations thereof.

-136- (new)

The bonded vehicular assembly of claim 131 wherein said isocyanate component comprises compounds with isocyanate functionality and said polyol component comprises compounds with hydroxy and/or amino functionality, and wherein the ratio of isocyanate functionality to hydroxy and amino functionality is from about 0.9 to about 2.0.

-137- (new)

The bonded vehicular assembly of claim 136 wherein said ratio of isocyanate functionality to hydroxy and amine functionality is from about 1.03 to about 1.4.

-138- (new)

The bonded vehicular assembly of claim 137 wherein said ratio of isocyanate functionality to hydroxy and amino functionality is from about 1.1 to about 1.3.

-139- (new)

The bonded vehicular assembly of claim 132 wherein said high amine density plural amine is a compound having an amine to carbon ratio of from about 1.0 to about

0.25:1, wherein (i) the compound contains at least 3 amine groups except if said compound is aromatic then said compound contains at least 2 amine groups, and (ii) the compound contains from 2 to 24 carbon atoms.

-140- (new)

The bonded vehicular assembly of claim 139 wherein said high amine density plural amine has a molecular weight of from about 115 to about 5000.

-141- (new)

The bonded vehicular assembly of claim 139 wherein said high amine density plural amine comprises a reaction product of (i) at least one of pentaerythritol, glucose, and sucrose, and (ii) at least one member selected from the group consisting of ammonia and amino alkanes of the formula $C_xH_nNH_2$ wherein x ranges from 1 to 20 and n is such that the alkane is saturated.

-142- (new)

The bonded vehicular assembly of claim 131 further comprising a layer of at least one of an adhesion promoter and a primer disposed between said first surface of said glass panel and said layer of adhesive.

-143- (new)

The bonded vehicular assembly of claim 142 wherein said at least one of said adhesion promoter and said primer is selected from the group consisting of silane compounds, titanium coupling agents, zirconium coupling agents, and moisture-curable urethane prepolymers.

-144- (new)

The bonded vehicular window assembly of claim 143 wherein said assembly is a movable vehicular window assembly.

-145- (new)

The bonded window assembly of claim 144 wherein said assembly further comprises a glass frit layer disposed on said first surface of said glass panel.

-146- (new)

The bonded window assembly of claim 144 wherein said load bearing attachment member is a hinge, said hinge comprising a first portion and a second portion that is movable with respect to said first portion, and wherein said first portion is bonded to said first surface of said glass panel by said adhesive disposed between and contacting said first portion and said glass panel.

-147- (new)

The bonded window assembly of claim 146 wherein said second portion of said hinge is affixed to a vehicular mounting surface.

REMARKS

Applicant notes that the undersigned counsel for Applicant has enclosed a notice of Change of Attorney's Address in Application as a separate paper herewith. Entry of counsel's modified address on the record of this application is respectfully requested.

Receipt of the Office Action mailed March 24, 1997, which action was made final, is respectfully acknowledged. Claims 1-4, 6-37, 39-74, 76-110, and 112-130 remain in the application. Claims 5, 38, 75 and 111 have been cancelled herein. Claims 1, 14, 18, 37,